

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
28 October 2004 (28.10.2004)

PCT

(10) International Publication Number
WO 2004/091395 A2

- (51) International Patent Classification⁷: **A61B 5/06**, (74) Agent: MEYER, Michael; Philips Intellectual Property &, Standards GmbH Weissshausstr. 2, 52066 Aachen (DE).
A61K 49/18
- (21) International Application Number: PCT/IB2004/050446
- (22) International Filing Date: 15 April 2004 (15.04.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
03101018.4 15 April 2003 (15.04.2003) EP
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tual Property &, Standards GmbH Weissshausstr. 2, 52066
Aachen (DE).
- (81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.
- (84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Euro-
pean (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR,
GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG).
- Published:**
— without international search report and to be republished
upon receipt of that report
- For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

(54) Title: METHOD FOR SPATIALLY RESOLVED DETERMINATION OF MAGNETIC PARTICLE DISTRIBUTION IN AN AREA OF EXAMINATION

(57) Abstract: The present invention relates to a method for improved spatially resolved determination of magnetic particle distribution in an area of examination, where the changes in spatial distribution, the concentration and/or the anisotropy of these magnetic particles in the area of examination are monitored. The invention further also relates to magnetic particle compositions having improved magnetic imaging properties for use in the method according to the invention. The present invention further also relates to a method and an apparatus having improved spatial resolution in the method according to the invention by application of a high frequency field to increase the spin temperature of the spin systems of the magnetic particles.